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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/687,759

10/20/2003

Yu-Cheng Chen

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9603

22429

7590

01/11/2005

LOWE HAUPTMAN GILMAN AND BERNER, LLP  
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EXAMINER

NGUYEN, THANH NHAN P

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/687,759	CHEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	(Nancy) Thanh-Nhan P Nguyen	2871	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### **Priority**

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the U.S. on 10/20/2003. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

### **Claim Objections**

Claim 10 is objected to because of the following informalities:

Claim 10 presently read as "forming a insulating..." It appears that it should have read "forming an insulating..." and has been examined accordingly.

Appropriate correction is required.

### **Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

**Claim 5 is rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "gate lines vertically parallelized and separated" has unclear meaning. Therefore, for the examination purpose, claim 5 will be interpreted as "gate lines run horizontally, vertically parallelized and separated".

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Chartier U.S. Patent No. 4,938,567.**

Referring to claim 1, Chartier discloses a multi-layered complementary wire structure comprising: at least a first wire comprising a first main line (LG); a plurality of first branch lines (lg1); and a plurality of contact holes (CX3) used to connect the first main line and the first branch lines; and at least a second wire, comprising a second main line (CL); a plurality of second branch lines (col1, col2); and a plurality of contact holes (CX4, CX5) used to connect the second main line and the second branch line, wherein, the first main line is insulated and crossed with the second main line, the first main line is insulated from the second branch lines, the first main line (LG) and the second branch lines (col1, col2) are located in a first conductive material layer, [see col. 6, lines 18-22; figs. 2-4, and 12].

It is inherently that the second main line (CL) is insulated from the first branch lines (lg1), and the second main line and the first branch lines are located in a second conductive material layer, [see fig. 12]. Otherwise, the device won't work because of short circuit.

Referring to claim 2, Chartier discloses the first main line is perpendicularly crossed with the second main line, [see fig. 2].

Referring to claim 3, Chartier discloses each of the first branch lines is connected to the first main line by two of the first contact holes, [see fig. 2].

Referring to claim 4, Chartier discloses each of the second branch lines is connected to the second main line by two of the second contact holes, [see fig. 2].

Claim 5 is met the discussion regarding claim 1 rejection above except having some additional limitations, which Chartier discloses as following: a matrix structure of a display comprising a substrate (1); a plurality of pixel units (PX) arranged in a matrix and located on the substrate, wherein the pixel units are separated by a plurality of gate lines (LG) run horizontally, vertically parallelized and separated, and a plurality of data lines (CL) laterally parallelized and separated.

Referring to claim 6, Chartier discloses each of the pixel units comprises a thin film transistor structure, [see fig. 2].

Claims 7-9 are met the discussion regarding claims 2-4 rejection above respectively.

Referring to claim 10, Chartier discloses a method for manufacturing a multi-layered complementary wire structure comprising forming a first conductive material layer on a substrate, [see col. 6, lines 18-20, and lines 25-27]; patterning the first conductive material layer to form at least a first main line (LG) and a plurality of first branch lines (col1, col2), wherein the first branch lines are respectively located on two sides of the first main line and in-line arranged, and the first main line is insulated from the first branch lines, the first main line is a first part of a first wire, and the first branch lines are a first part of a second wire, [see fig. 4]; forming an insulating layer (2) on the first conductive material layer and the substrate, [see fig. 5]; patterning the insulating layer to form a plurality of first contact holes (CX3) and a plurality of second contact holes (CX4, CX5), and the first contact holes expose a portion of the first main line, and the second contact holes expose a portion of each of the first branch lines, [see fig. 8]; forming a second conductive material layer to cover the insulating layer and fill the first contact holes and the second contact holes, [see col. 3, lines 50-51; fig. 12]; patterning the second conductive material layer to form at least a second main line (CL) and a plurality of second branch lines (lg1), wherein the second branch lines are in-line arranged and respectively located on two sides of the second main line, and the second main line is insulated from the second branch lines, the second main line is a second part of the second wire and the second branch lines are a second part of the first wire, and second main line is located above the first branch lines and the second branch lines are located above the first main line, [see col. 3, lines 52-59; fig. 12].

Claim 11 is met the discussion regarding claim 2 rejection above.

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Chartier U.S. Patent No. 4,938,567 discloses a multi-layered complementary wire structure comprising at least a first wire, and at least a second wire, wherein, the first main line is insulated and crossed with the second main line, the first main line is insulated from the second branch lines, the first main line and the second branch lines are located in a first conductive material layer; the second main line is insulated from the first branch lines, and the second main line and the first branch lines are located in a second conductive material layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on M-F/9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(Nancy) Thanh-Nhan P Nguyen  
Examiner  
Art Unit 2871



KENNETH PARKER  
PRIMARY EXAMINER